

BOTANICAL LEAFLETS

ISSUE 13

SPRING 2014



PRESIDENT'S MESSAGE

It's beginning to look like summer and with the drought we are having it will be interesting to see what the bloom is like upslope. The spring wildflowers in our part of the state actually were OK due to the March rains. The visits to Table Mountain had wonderful flower displays. I helped with the Siskiyou Wildflower Show and there were quite a few species that were out earlier than normal. Hope you too enjoyed the spring wildflowers this year.

Wasn't our symposium great

this past January? I had quite a few people say this was the best one yet. A big thank you to the Board and symposium committee that all helped make it a success.

The California Native Plant Society plans to have their next conference in San Jose in January of 2015. We plan our symposiums two years in a row, then a year off to attend the CNPS conference. So, our next symposium will be in 2016.

We have completed our review for our 2014-2015

student research scholarships. We received numerous fantastic applications. It was hard to make the selections. We are awarding two additional scholarships this year and the Shasta Chapter of CNPS is funding yet another for a total of 10 scholarships. What a wonderful collaborative effort to get another scholarship awarded!

Have a wonderful summer pursuing your many vast botanical adventures.

Linnea Hanson

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ARE YOU INTERESTED IN BEING AN NCB BOARD MEMBER?

Are you interested in being on the NCB Board of Directors? We have meetings on the third Friday of each month from 9-11am in the Chico State Herbarium (a conference line is available). We need people who want to actively participate! Board members participate in symposium planning, the student scholarship review committee, the newsletter, and other events such as the NCB booth at the 2015 CNPS Conference. Each person on the board is actively involved with symposium planning, developing the program and speakers, publicity, and seeking sponsorships. If you would like to be considered a candidate for the Board, please contact Linnea Hanson, President of NCB at linneahanson@gmail.com by June 19, 2014.

MYSTERY PLANT

This native perennial, photographed in oak litter, may not be seen very often, although it belongs to a large family containing familiar genera and many familiar species. The purple and white flowers are slightly two-lipped. The plants lack chlorophyll and true leaves! Plants are most commonly found in chaparral and oak woodlands in northwestern California, but the overall geographic range is from southern Oregon to Baja California. Photo by Linnea Hanson

(Answer on Page



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FIELD-BASED STUDIES ON WHITEBARK PINE IN CALIFORNIA-A DATA-SHARING SESSION

The Whitebark Pine Workshop at the 2014 NCB Symposium was well attended and very informative. The morning session addressed the species in the Sierra Nevada and the afternoon session highlighted the Klamath, Cascade and Modoc areas. The mountain pine beetle outbreaks in the state and the regeneration that is occurring in

the June Lake and Warner Mountains were explained. The mutualism between the whitebark pine and the Clark's Nutcracker was fascinating. Dr. Connie Millar has posted the presentations from the Whitebark Pine Workshop as well as three of the 2014 NCB Symposium Alpine Session talks at:

<http://www.fs.fed.us/psw/cirmount/meetings/ncb2014.shtml>. You can also access it by going to the CIRMOUNT home page, Meetings, Meeting Archives.

Thank you to Diane Ikeda for sharing this posting with all of us.

2014-2015 STUDENT RESEARCH SCHOLARSHIP AWARDS

An important mission of the Northern California Botanists is to provide monetary scholarships for students doing research on botanical subjects in northern and central California. We received 27 applications and as usual there were many great research projects to choose from. This year, we are awarding two additional scholarships and the Shasta Chapter of CNPS is sponsoring one additional scholarship for a student from and/or conducting research in their Chapter Area (Shasta, Siskiyou, Modoc, and Lassen Counties). In total, NCB will be awarding ten \$1,000 scholarships for 2014-2015. The scholarship recipients are listed below. Congratulations to these students and thank you to all that submitted applications!

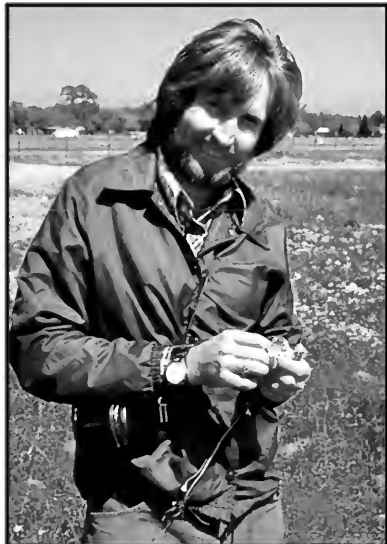
2014-2015 NCB RESEARCH SCHOLARSHIP RECIPIENTS

Recipient	Degree Program	College	Title of Research Project
Kyle Christie	PhD	University of California, Davis	Speciation mechanisms in <i>Streptanthus</i> : A flagship endemic of the California flora
Rebecca Crowe	MS	San Francisco State University	The role of environmental variation on the dormancy requirements of <i>Neostapfia colusana</i> (Colusa grass)
Joan Dudney	PhD	University of California, Berkeley	Invasions in the Sierra Nevada: Forest management impacts on understory species
Arielle Halpern *Shasta Chapter CNPS Scholarship*	PhD	University of California, Berkeley	Prescribed burning and cultural plant resources of the Karuk and Yurok peoples of California
Sandra Namoff	PhD	Claremont Graduate University	Conservation genetics of <i>Calystegia stebbinsii</i> , a rare edaphic endemic of the Northern Sierra Nevada foothills
Kristen Nelson	PhD	California Polytechnic University, San Luis Obispo	Flower color change in California species of <i>Lupinus</i>
Meagan Oldfather	PhD	University of California, Berkeley	Using experimental demography to project alpine plant ranges in a warmer, drier future
Shelley Sianta	PhD	University of California, Santa Cruz	The ecological context of adaptation to a novel pollinator in <i>Clarkia</i>
Lorena Torres Martinez	PhD	Purdue University	Evolutionary potential for responding to climate change in vernal pool goldfields
Claire Willing	PhD	University of California, Berkeley	Bottom-up impacts of mycorrhizal communities on the ecology and physiology of coast redwood trees

Answer to "Mystery Plant": *Kopsiopsis strobilacea*, California ground-cone. (Broom-rape Family, Orobanchaceae)

NORTHERN CALIFORNIA BOTANISTS IN ACTION

This issue of Leaflets features a continuing series that highlights well-known to possibly less-well-known botanists, with photographs from the present to several decades back. If you have unpublished pictures of Northern California Botanists to share, please send jpegs and relevant information to rschlisling@csuchico.edu



Jon Keeley knows plants in relation to fire and water! When he was a (mainly) southern Californian botanist, Dr. Keeley completed definitive studies on physiology of aquatic plants in relation to habitat (he is shown visiting a vernal pool landscape in northern California in 1981). He publishes studies on many aspects of plants and ecosystems, especially on fire ecology. He has served as direc-

tor of the ecology program for the National Science Foundation in Washington, D.C. Jon is presently at the Western Ecological Research Center, Sequoia and Kings Canyon Field Station (at Three Rivers) for the U.S. Geological Survey. His impressive "bio" for that agency lists over 250 publications.



Diane Ikeda started in botany at Occidental College (where Jon Keeley was her teacher). She was supported by a NSF research grant at the Eagle Lake Field Station in Lassen County (shown there in 1978, discovering *Agastache parvifolia*). Her MS degree at Chico State University was on reproductive biology in *Navaretia* in parts of northern California. Now, among her myriad projects as Botanist for Region 5, USDA Forest Service, Diane recently organized the major whitebark pine workshop for the NCB symposium.



Samantha Hillaire graduated from Duke University and then earned her masters at Chico State, publishing her work on the rare *Cryptantha crinita*. Sam worked on several national forests before joining a major consulting firm in northern California. She is shown here in complete field gear (vest, gators, gloves, sunproof hat). She co-authored the "Flora of Table Mountain" with Albin Bills, and is working on a flora of the Ishi Wilderness (Tehama County). She serves on the board of NCB, and gives workshops on "how to be a botanist."



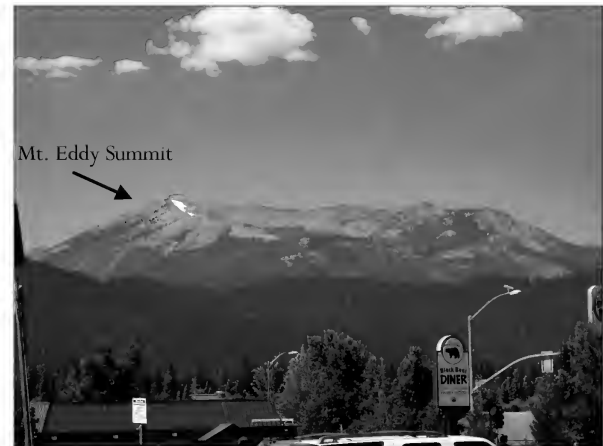
Allison Sanger has been Forest Botanist of Lassen National Forest for eight years. Her undergraduate studies were at Cal Poly, San Luis Obispo. Her botanical background includes work on Modoc National Forest, and graduate study at Chico State University with John Willoughby of the Bureau of Land Management. Allison is shown at work in 2013, at LNF Pa-poose Meadows Restoration Project area. Her work at the Forest is mainly concentrated on noxious weeds and on rare plants--with *Botrychium* one of her special interests.

MT. EDDY LANDS ACQUIRED FOR PUBLIC STEWARDSHIP

By Julie Kierstead Nelson, Forest Botanist, Shasta-Trinity National Forest; May 20, 2014

The Shasta-Trinity National Forest, in partnership with the Trust for Public Land, is excited to announce a recent land purchase near Mt. Eddy in Siskiyou County, nine miles west of the City of Mt. Shasta. This land purchase consists of nearly 713 acres, including 12 acres of wetlands/floodplains, and .75 miles of lakeshore around Lower Deadfall Lake.

Mt. Eddy is the tallest peak in the Klamath Ranges of north-western California, and because of its unusual ultramafic rock substrate and plentiful seeps, springs, *Darlingtonia* fens, streams, and high elevation lakes, is important habitat for many unusual plants, animals, and vegetation types. This area is also home to the largest outcrop of serpentine in North America.



Klamath Range Serpentine Endemics



Trinity buckwheat -
Eriogonum alpinum

Since high elevation serpentine is so uncommon in North America, Mt. Eddy supports a number of plant species with extremely limited geographic ranges. One of the plants in this area, Mt. Eddy sky pilot (*Polemonium eddyense*), was named in 2013 as a new species known only from Mt. Eddy and nowhere else



The rarest plant of all – new species 2013
Mt. Eddy sky pilot, *Polemonium eddyense*



Because of Mt. Eddy's beautiful high elevation meadows, lakes, wildflowers and spectacular views, it is an important recreation destination. The Pacific Crest National Scenic Trail and a portion of the Sisson-Callahan National Recreation Trail cross through this newly purchased land.

California pitcher plants



Siskiyou fireweed
Epilobium siskiyouense



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The acquisition of this land will also help protect the upper watershed of Deadfall Creek, an extensive area of streams and wetlands. There will be opportunities for enhancement of plant and animal habitat, wetlands, whitebark pine (*Pinus albicaulis*) and foxtail pine (*P. balfouriana*) woodland, and compatible recreational use. Upper Deadfall Basin, an existing botanical Special Interest Area, immediately adjacent to this newly acquired parcel,

Foxtail Pine Research Natural Area
Deadfall Basin Botanical Special Interest Area
Acquisition of summit parcels



High elevation 5 needle pines



Whitebark pine
Pinus albicaulis



Foxtail pine
Pinus balfouriana



Marsh marigold
Caltha leptosepala



The Eddys stonecrop
Sedum kiersteadiae

If you go, take water or filter; there is no potable water on the way. FS plans to install a pit toilet at the PCT trailhead at Parks Creek summit, but it's not there yet. The hike to Upper Deadfall Basin, from either the Parks Creek summit Pacific Crest Trail trailhead or the Deadfall Meadows trailhead, is moderately strenuous; plan for 2-3 hours

one way with stops to look at things and catch your breath. The hike from Upper Deadfall Basin to the summit of Mt. Eddy (9025 ft. elev.) is a strenuous mile. The best wildflower shows are from July to mid August; but even into October there can be good shows of gentians, asters, and grass-of-Parnassus.





NORTHERN CALIFORNIA
BOTANISTS

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